UNITED STATES AIR FORCE
INSTALLATION RESTORATION PROGRAM
KELLY AIR FORCE BASE
SAN ANTONIO, TEXAS

Corrective Measures Implementation

Work Plan for Site S-8 Groundwater

Kelly Air Force Base (Final Draft)

Prepared By Science Applications International Corporation (SAIC)
Kelly Air Force Base, Texas
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EXECUTIVE SUMMARY

Science Applications International Corporation was contracted by Kelly Air Force Base to develop this Corrective Measures Implementation Work Plan for Site S-8. The Work Plan as required by the Kelly Air Force Base Compliance Plan (TNRCC No. CP-50310) describes the corrective measures implementation process for shallow groundwater at Site S-8 from the present through site closure. The site has been used for a variety of purposes, such as the Automated Engine Parts Cleaning Facility that stored cleaning solvents in aboveground and underground tanks and a JP-4 fuel underground storage tank facility.

Contaminants have been released into shallow groundwater at Site S-8 from the Industrial Wastewater Collection System, underground solvent and fuel tanks, and other sources. Light nonaqueous phase liquid, mainly JP-4 fuel, has been measured intermittently in both on-base wells and in wells in the Union Pacific railyard adjacent to the site. The thickness generally increases as the groundwater level declines and decreases, sometimes disappearing when the groundwater level rises. The JP-4 fuel plume is localized and discontinuous due to the interbedded nature of the shallow sediments. Currently, concentrations of solvents and other hydrocarbons exceed regulatory levels in on-base source areas and in a shallow groundwater plume (approximately 24 feet below ground surface) that extends off base into the adjacent railyard. There are currently no pathways of exposure for residential receptors at Site S-8, although construction workers may be exposed to contaminants in excavations. Based on surveys of the off-base residential areas, shallow groundwater is not used for drinking water, so there is no ingestion of the contaminants.

The purpose of this document is to describe the final groundwater corrective measures for Site S-8 including the design, construction, operation, maintenance, and performance monitoring of the system. The soil cleanup plan for Site S-8 is described in the *Closure Plan for Zone 3 Soil* dated March 1998. The Corrective Action System consists of two recovery wells to collect and treat the contaminants in shallow groundwater and passive bailers with hydrophobic filters to collect light nonaqueous phase liquids. An Interim Recovery System that was installed in 1992 will be abandoned except for one well, and an additional recovery well has been installed. Both wells are located in permeable channels in the shallow aquifer that are preferential pathways for contaminants. The recovery wells will contain the on-base and capture the off-base contaminant plumes. Bailers will be installed in 16 wells that contain the greatest and most frequent measurements of light nonaqueous phase liquids (fuel).

The objective of the Corrective Action System is to achieve the Groundwater Protection Standard in the Point of Compliance Wells at the Kelly Air Force Base boundary. After the Groundwater Protection Standards are achieved, the base will initiate a compliance monitoring program for the post-closure period.